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KNOWLEDGE MANAGEMENT SYSTEM DESIGN AT HUMAN RESOURCES DIVISION

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ABSTRACT

The Human Resources Division of a company is a vital division. Most of the time, they perform their work manually, and therefore creating limitations to their capacity. The knowledge contained is very important for human resources development and subsequently for developing the company. In order to manage this knowledge well, the company shall require a knowledge management system. This knowledge management system would be a solution to be used for the company to manage all knowledge contained in that particular division. Phases in designing knowledge managements starts from analyzing knowledge sources of the company, knowledge identification and definition, and determining knowledge goals. Knowledge management systems contain many functions such as collecting, recording and managing the knowledge and sharing this to all related employees easily. The company may also use knowledge management systems to share and inform employees regarding updates of information, news and/or activity regarding the employees themselves. Information from knowledge management systems may also be used by employees to monitor their performance and thereby increasing it. Knowledge management systems may also help employees in their learning activities.

Keywords: knowledge management, human resources, employee

ABSTRAK

Divisi Sumber Daya Manusia dalam sebuah perusahaan adalah bagian yang sangat penting. Hampir selalu, divisi ini melakukan pekerjaannya secara manual, dan oleh karena itu membatasi kapasitas pekerjaan mereka. Knowledge yang mereka kelola sangat penting untuk pengembangan sumber daya manusia dan maka dari itu penting untuk mengembangkan perusahaan. Untuk mengelola pengetahuan ini dengan baik, perusahaan memerlukan sebuah knowledge management system. Knowledge management system akan menjadi solusi untuk digunakan perusahaan dalam mengelola semua knowledge yang ada dalam divisi tersebut. Tahap-tahap dalam merancang sebuah knowledge management system dimulai dari menganalisis sumber knowledge dari perusahaan, identifikasi dan definisi knowledge, dan menentukan tujuan knowledge. Knowledge management system mempunyai banyak fitur seperti mengumpulkan, merekam dan mengelola knowledge dan memberikan knowledge ini ke semua karyawan yang terkait dengan mudah. Perusahaan juga dapat menggunakan knowledge management system untuk berbagi dan memberitahu karyawan mengenai pemuktahiran informasi, berita, dan/atau aktivitas dari para karyawan itu sendiri. Informasi dari knowledge management system dapat juga digunakan perusahaan untuk memantau kinerja mereka dan beranjak dari hal itu, untuk meningkatkannya. Knowledge management system dapat juga membantu para karyawan dalam aktivitas pembelajaran mereka.

Kata kunci: knowledge management, sumber daya manusia, karyawan

INTRODUCTION

Western philosophers have generally agreed that knowledge is justified true belief which is a concept that was first introduced by Plato. However, the definition of knowledge is far from perfect in terms of logic. According to this definition, our belief in the truth of something does not constitute our true knowledge of it, so long as there is a chance, however slight, that our belief is mistaken. Therefore, the pursuit of knowledge in Western philosophers to search for the method to help them establish the ultimate truth of knowledge beyond all doubt. They have aimed to discover "fundamental knowledge without proof or evidence," on which all other knowledge could be grounded.

Data is a set of discrete, objective facts about events. In an organizational context, data is most usefully described as structured records of transactions. Modern organizations usually store data in some sort of technology system. It is entered into the system by departments such as finance,

accounting and marketing. Until recently it has been managed by central information systems departments that respond to requests for data from management and other parts of company. The current trend is for data to be somewhat less centralized and available on demand from desktop PCs, but the basic structure of what it is and how we store and use it remains the same.

Quantitatively, companies evaluate data management in terms of cost, speed and capacity. Qualitative measurements are timeliness, relevance and clarity. All organizations need data and some industries are heavily dependent on it. Data describes only a part of what happened; it provides no judgment or interpretation and no sustainable basis of action. But data is important to organizations, because it is essential raw material for creation of information.

Information is a message, usually in the form of document or an audible or visible communication. As with any message, it has a sender and a receiver. Information is meant to change the way the receiver perceives something, to have an impact on his judgment and behavior.

Quantitative measures of information management tend to include connectivity and transactions. Qualitative measures measure informativeness and usefulness. Unlike data, information has meaning the relevance and purpose. Not only does it potentially shape the receiver, it has shape: it is organized to some purpose. Data becomes information when its creator adds meaning. We transform data into information by adding value in various ways.

Most people have an intuitive sense that knowledge is broader, deeper and richer than data or information. Knowledge is a fluid mix of framed experience, values, contextual information and expert insight that provides a frame work for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowledge owners. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms.

First, Knowledge, unlike information, is about beliefs and commitment. Knowledge is a function a particular stance, perspective or intention. Second knowledge, unlike information is about action. It is always knowledge "to some end". And third, knowledge, like information, is about meaning. It is context-specific and relational.

Although terms "information" and "knowledge" are often used interchangeably, there is a clear distinction between information and knowledge. As Bateson (1979) put it, "information consists of differences that make a difference" Information provides a new point of view for interpreting events or objects, which makes visible previously invisible meaning or sheds light on unexpected connections. Thus information is a necessary medium or material for eliciting and constructing knowledge. Information is a flow of messages, while knowledge is created by that very flow of information, anchored in the beliefs and commitment of its holder. This understanding emphasizes that knowledge is essentially related to human action.

Finally, both information and knowledge are context-specific and relational in that they depend on the situation and are created dynamically in social interaction among people. Berger and Luckman (1966) argue that people interacting in a certain historical and social context share information from which they construct social knowledge as reality, which in turn influences their judgment, behavior and attitude.

Michael Polanyi's (1966) describe that tacit knowledge is personal, context-specific and therefore hard to formalize and communicate. Explicit or "codified" knowledge, on the other hand, refers to knowledge that is transmittable in formal, systematic language. Polanyi contends that human beings acquire knowledge that can be expressed in words and numbers represents only the tip of the iceberg of the entire body of knowledge. In contrast, Polanyi contends that human beings create knowledge by involving themselves with object, that is, through self involvement and commitment, or what Polanyi called "indwelling". To know something is to create its image or pattern.

Table 1 Two Types of Knowledge

Tacit Knowledge (Subjective)	Explicit knowledge (Objective)
Knowledge of experience (body)	Knowledge of rationality (mind)
Simultaneous knowledge (here and now)	Sequential knowledge (there and then)
Analog knowledge (practice)	Digital knowledge (theory)

Knowledge management enables the creation, distribution, and exploitation of knowledge to create and retain greater value from core business competencies. Knowledge

management addresses business problems particular to your business, whether it is creating and delivering innovative products or services; managing and enhancing relationships with customers, partners and suppliers or improving work processes. The primary goal of knowledge management in a business context is to facilitate opportunistic application of fragmented knowledge through integration.

The ability of companies to exploit their intangible assets is far more decisive than their ability to exploit their physical assets. As markets shift, uncertainty dominates, technologies proliferate, competitors multiply and products and services become obsolete rapidly, successful companies are characterized by their ability to create new knowledge consistently, quickly disseminate it and embody it in their new products and services. The road to harnessing their expertise comes with few shortcuts. There are 8 reasons for this.

First, knowledge integration is the engine of economic prosperity. Knowledge is rapidly displacing capital, monetary prowess, natural resources and labor as the quintessential economic resource. With shortening product and service life cycles, knowledge integration, internally and across customer and supplier networks undergrid companies ability to ask the right questions. The scarcity of innovative knowledge increases the rewards for turning tacit knowledge into market offerings. Because there can be winners only if there are losers, the better a business gets at this, the higher gets at this, the higher are its odds of success.

Second, unpredictable markets necessitate "organized abandonment" The next critical piece of critical information could take any forms, an evolving social trend affecting customer preferences, a new management practice, a nascent technology or a political or economic development in a remote manufacturing location. Knowledge management lets you proactively improvise products, get out of projects and product lines that can drag your business down, and get into others that maximize growth potential as radical market shifts threaten to put your business in the wrong place, at wrong time or with the wrong product.

Third, knowledge management lets you lead change so that change does not lead you. Even conventional retailers such as WalMart consider their competence in logistics management, a knowledge intensive activity to be their primary driver of business success. By rapidly exploiting and applying fragmented internal and external knowledge, a business can reliably detect emerging windows of opportunity before competitors.

Fourth, cross industry amalgamation is breeding complexity. Complexity, uncertainty and ambiguity are hallmarks of today's production and business systems, irrespective of the nature of business or type of industry.

Fifth, those who forget the past are condemned to repeat it. Without a way of capturing and integrating past experience, any development process can quickly dissolve into chaos. Knowledge management helps leverage past experience by making knowledge about past projects, initiatives, failures and successes readily accessible. It also enables knowledge intensive collaboration across individuals, teams and communities of specialists.

Sixth, a bridge is needed across the Atlantic. Not only competitors but suppliers, business partners and internal offices are increasingly globally distributed. Keeping pace with developing threats or opportunities in other countries is a tedious, time consuming and difficult process that knowledge management.

Seventh, tacit knowledge is mobile. The most valuable knowledge, skills and competencies in your business reside tacitly between the ears of your employees. As easily as these elements accompany employees home every night, they can also be lured into competitor's corner office. Tacit knowledge can rarely be fully articulated, yet in can be easily manifested through knowledge from these processes, it can maximize its productive application for both leading and adapting to turbulent business environments.

Eight, knowledge application requires water cooler and coffee machine cultures; IT barely supports sharing. Knowledge management, as artificial intelligence research ironically reminds us, is not about machines but about culture.

The role of Human Resources has changed significantly over the past couple of decades and its continuing to change as the Human Resources profession strives to gain acceptances as strategic business partner. In many organization Human Resources is performing a very different role to that twenty to thirty years ago. Its role has evolved from that of payroll clerk and welfare supporter, through corporate policeman and industrial relations expert, to that of a business partner role. A key of change has been in the label given to those working in the field of Personnel. The Personnel label, other than in public sector organizations, has been largely superseded with that Human Resources. This change coincided with decline in the importance associated with industrial relations, both in economic and political terms and the decline in the membership and influence of trade unions (Guest, 1998).

The Human Resources Management agenda according to David Guest (1998) is concerned with ensuring commitment from employees; creating a focus on values, mission and purpose; developing an environment based on high trust and building an organization consisting of flexible roles, flatter structure and where there is autonomy and self control within the work that individuals do. The Human Resources function, according to Dave Ulrich (1998), is crucial to organizations achieving excellence. Excellence, according to Ulrich comes through a focus on learning, quality, teamwork, reengineering, knowing how things get done within an organizations and also how people get treated; all of which are Human Resources issues and hence achieving organizational excellence requires the work of Human Resources.

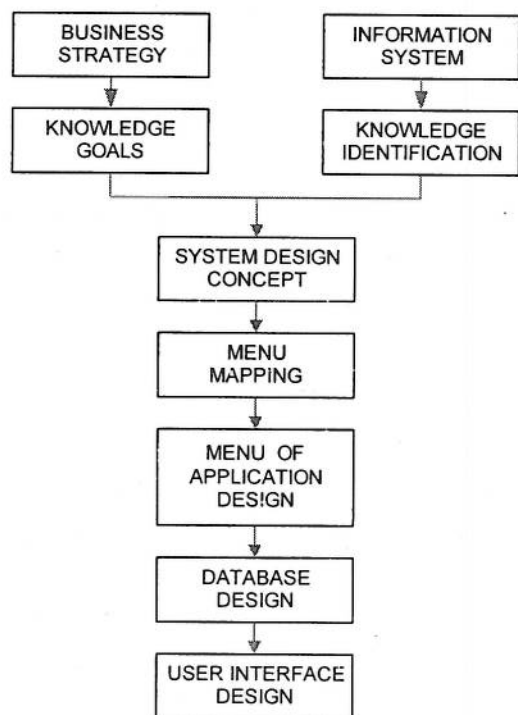


Figure 1 Framework of Knowledge Management Design

RESEARCH METDHOS

There are several important methods, which all beginning with the letter C, which are (1) Contextualized, means that we know for what purpose the data was gathered; (2) Categorized, means that we know the units of analysis

or key components of data; (3) Calculated, means that the data may have been analyzed mathematically or statistically; (4) Corrected, means that errors have been removed from the data; and (5) Condensed, means that the data may have been summarized in a more concise form. Note that computers can help to add these values and transform data into information but they can rarely help with context and humans must usually help with categorization, calculation and condensing.

RESULTS AND DISCUSSION

Menu Design

Knowledge management application is divided into 8 main menus, including main page (home). That main menu are User Management, Library, Project, Event, Community, MoM (Minute of Meeting), Training, and Helpdesk.

First, User Management. User management contains about personal employee data, record and performance evaluation, task, responsibilities each division. Another data contain level of achievement from each division and report form working result from task and responsibilities outside from regular job. Using personal employee data, an employee can see about his/her personal data and doing update. Only register user/employee can do update or changes data. And a manager can give a note about employee performance. This note only can see by manager who have authorize.

Other sub menu in this menu may contain job descriptions and responsibilities, which every employee can access, but cannot change. Other sub menus are work report, which can use support employee reporting work that doing outside regular task. This application can send automatic report to manager. User Management menu required fields, which are Name, Birth Date, User, Gender, Password, Address, Login Type, Job Type, Join Date, Date, Problems, Solving, PIC, and Remarks. Non-required fields, which are Email, City, Province, Postal Code, Country, Home Phone, Work Phone, Fax, and Scoring.

Second, Library. This menu support function and performance. By this menu, employee can search for any kind of reference or human resources articles. item in library not only from book, but can from magazine, user manual, CD, DVD, motivation articles, personal skill development articles. An administrator can update, add, change and delete the item in this menu. Library menu fields, which are Title, Author, Synopsis, Type, Co Author, Subject, Volume, Edition, Issue, Year Published, Pages, Book Cover, Notes, Book Number, Location, ISBN, and Publisher. To grouping project knowledge can be by Title, Author, Type, Co Author, Subject, Year Published, ISBN, and Publisher.

Third, Project. The main purposes of this menu are to document a project, since project start until project finishing. Using project menu, an employee who involve with project can upload about project progress and results. This documentation can use as reference for next step of project. Project menu fields, which are Name, Start Date, Due Date, Detail, Status, and Notes. Project knowledge can be grouped by Name, Start Date, Due Date, and Detail.

Fourth, Event. Human resources division or other division can use this menu to upload new event schedule in company. Through this menu, an employee can input his/her personnel agenda in company, and can setting form alert system. This alert system can set by time of event or can set by activity calendar. The system will give reminder to employee about the event before the day. With this menu, an employee can organize daily task or daily working program. Event menu fields, which are Event Name, Event Date, Detail, and Notes. Event knowledge can be grouped by Event Name, Event Date, and Detail.

Fifth, Community. This menu is divided in 2 different sub menu which to support employee activity in company. These sub menus are (1) Announcement, contains about any

announcement in company, can be about rules, board policy, new event, refreshing activity, etc. this sub menu must be managed by administrator or manager. Community menu fields contain about Title, Date, Detail, and Notes. Community knowledge can be grouped by Title and Date; and (2) Forum. An employee can use this menu to discuss about interesting topics and as information media to share idea, aspiration, though, and problem solving. This menu can save any kind of discussion topic and employee can read anytime they need to know or search about the information they need. Forum menu fields contain about Name, Category (General, Special), Title, and Division. Forum knowledge can be grouped by Name, Category, Title, Division, and Date.

Sixth, Training. Purpose of training menu is to support management and documentation of all of training event in company. In its implementation it can record training theories which include theories from external sources. After the training session, an employee can upload all of training

material to training menu. Uploaded material can read by other employee. Besides, employee can search for the history of his/her training or other employee training. Training menu fields contain about Date, Topic, Theory, Trainer, Trainee, Goal, Type, Keyword, Location, Remarks, Result, and Comment. Training knowledge can be grouped by Date, Topic, Type, Keyword, Theory, and Trainer.

Seventh, MoM (Minute of Meeting). Menu contains all of meeting result. Using this menu employee can see the progress about task or decision in meeting. Include data about meeting time, agenda, meeting topic, meeting result, audience, leader, etc. MoM menu fields contain about Topic, Agenda, Leader, Result, Date, Audience, Speaker, Place. To grouping MoM knowledge can be by Topic, Agenda, Result, and Date.

Eight, Help Desk. Help desk stores data on problem and solutions, especially in relation with information system problem, human resources management, or other topic problem. Using this menu, the employee may search or operate the computer and solve the problem more easily using help desk menu. Helpdesk menu fields contain about Category, Type, Solution, and Problem. To grouping helpdesk knowledge can be by Category, Type, and Problem.

Table 2 Knowledge Management Menu Map

Normative	Community	Library	Community
a. Self Learning	User Management	Forum	Costumer Info
b. Culture	Helpdesk	Helpdesk	
b. Aspiration media	Training	Community	
Strategic	User Management	Project	Community
a. Effective	Project	Community	User Management
b. Knowledge	Library	Library	
c. Used	Community	User Management	
b. Documentation	Helpdesk	Helpdesk	
	Training	Training	
Operational	Project	Helpdesk	User Management
a. IT Support	Helpdesk	Training	Community
b. Database	Training	Project	Project
Support	User Management	Community	
	Structural	Functional	Behavioral
	1. Job Desk	1. Project	1. Sharing
	2. Data and Information	2. Documentation	2. Refreshing Program
	3. Key Performance Indicator	3. Job Report outside job desk	
	4. Employee Idea	3. Book, CD, magazine	
		4. Meeting result	
		5. Innovative idea from employee	
		6. Individual skill of employee	

Framework Database

Based on menu field, the database framework can be seen on Figure 2; and User Interfaces Structure can be seen on Figure 3.

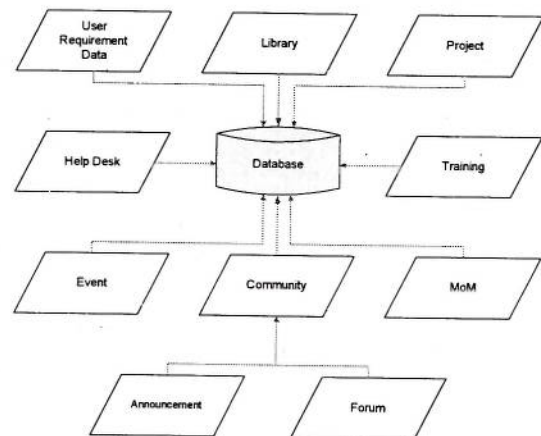


Figure 2 Database Framework

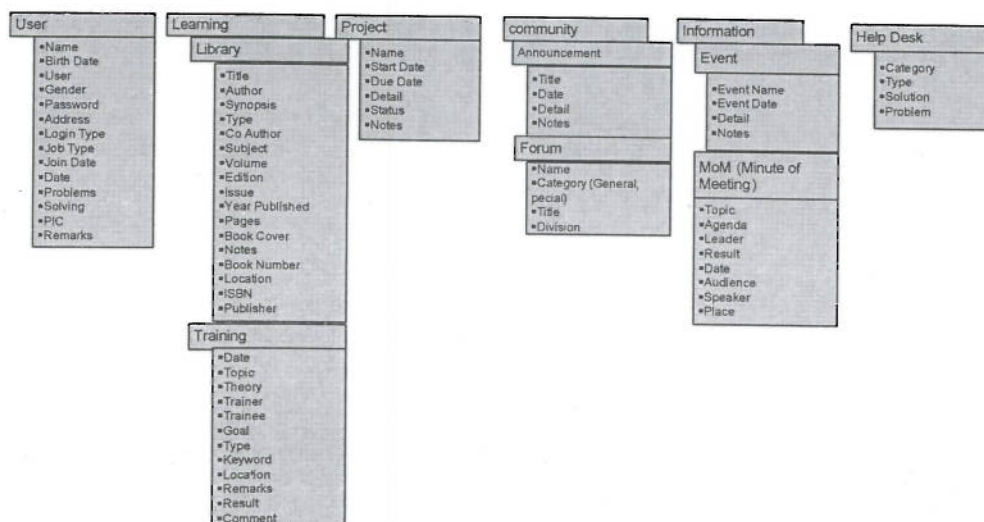


Figure 3 Menu Structure

CONCLUSION

Human resources management division is important division for a company. They have to manage all of employee data. To manage that data, it is important to have complete archives. Knowledge management system can be the answer for company to solve that problem since Knowledge management system can always record and update data, and it would be easier for users or employees to maintain their data, and Human Resources division can communicate information the employee needs fast. Other benefits from Human Resources Knowledge Management System are to help Human Resources division in doing maintain and development employee skills to improve employee performance and enhance the quality of human resources in company. To develop Human Resources knowledge management, first, company must state knowledge goals to be achieved. These goals are the basic role to identification knowledge needed by employees. After knowledge identification, the next step can be adopted from system development life cycle for technical analysis and design.

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